

What is Claimed is:

1. An air conditioner comprising:
 - a compressor;
 - an accumulator on an inlet side of the compressor for introduction of only gas refrigerant into the compressor;
 - an outdoor heat exchanger for heat exchanging between the refrigerant and exterior air;
 - an indoor unit having an indoor heat exchanger for making heat exchange between the refrigerant and room air, and an expansion valve; and
 - a sheath heater in the accumulator for heating the refrigerant in room heating for delaying deposition of frost on the outdoor heat exchanger.
2. The air conditioner as claimed in claim 1, wherein the sheath heater includes;
 - a coil formed heat generating part, and
 - two electrodes connected to the heat generating part for supplying power.
3. The air conditioner as claimed in claim 2, wherein the two electrodes are waterproof treated for preventing the two electrode from coming into contact with moisture from the outdoor heat exchanger, or the like.
4. The air conditioner as claimed in claim 1, wherein the sheath heater is formed of copper pipe.
5. The air conditioner as claimed in claim 1, wherein there are a plurality of indoor

units.

6. A method for controlling operation of an air conditioner comprising the steps of:
refrigerant from a compressor passing through, and heat exchanging with room air at,
an indoor heat exchanger;
the heat exchanged refrigerant passing through, and expanding at, an expansion
valve;
the expanded refrigerant passing through, and heat exchanging with exterior air at, an
outdoor heat exchanger, to become low temperature refrigerant;
heating the low temperature refrigerant with a sheath heater in an accumulator for
delaying growth of frost on the outdoor heat exchanger in room heating; and
varying a heat generating rate of the sheath heater with an exterior temperature.

7. The method as claimed in claim 6, wherein the step of varying a heat generating
rate of the sheath heater includes the steps of;
increasing the heat generating rate of the sheath heater if the exterior temperature is
lower than a reference temperature taken as the exterior temperature at which deposition of
frost on the outdoor heat exchanger starts, and
turning off the sheath heater in a case the exterior temperature exceeds the reference
temperature.

8. The method as claimed in claim 7, wherein the exterior temperature is divided into
a plurality of temperature sections.

9. The method as claimed in claim 8, wherein the heat generating rates of the sheath heater are determined proper to respective temperature sections by experiment.

10. The method as claimed in claim 6, wherein the sheath heater includes;
a coil formed heat generating part, and
two electrodes connected to the heat generating part for supplying power.

11. The method as claimed in claim 10, wherein the two electrodes are waterproof treated for preventing the two electrode from coming into contact with moisture from the outdoor heat exchanger, or the like.

12. The method as claimed in claim 6, wherein the sheath heater is formed of copper pipe.

13. A method for controlling operation of an air conditioner comprising the steps of:
refrigerant from a compressor passing through, and heat exchanging with room air and expanding at, a plurality of indoor units each having an indoor heat exchanger and an expansion valve;

the expanded refrigerant passing through, and heat exchanging with exterior air at, an outdoor heat exchanger, to become low temperature refrigerant;

heating the low temperature refrigerant with a sheath heater in an accumulator for delaying growth of frost on the outdoor heat exchanger in room heating; and

varying a heat generating rate of the sheath heater with a capacity of the indoor unit.

14. The method as claimed in claim 13, wherein the step of varying a heat generating rate of the sheath heater includes the steps of;

increasing the heat generating rate of the sheath heater if the capacity of the indoor unit required in room heating is greater than a reference capacity taken as the capacity of the indoor unit having the smallest capacity of the indoor units, and

turning off the sheath heater in a case the capacities of the indoor units is lower than the reference capacity.

15. The method as claimed in claim 14, wherein the capacity of the indoor unit required in room heating is divided into a plurality of sections.

16. The method as claimed in claim 15, wherein the heat generating rates of the sheath heater are determined proper to respective sections by experiment.

17. The method as claimed in claim 13, wherein the sheath heater includes;
a coil formed heat generating part, and
two electrodes connected to the heat generating part for supplying power.

18. The method as claimed in claim 17, wherein the two electrodes are waterproof treated for preventing the two electrode from coming into contact with moisture from the outdoor heat exchanger, or the like.

19. The method as claimed in claim 13, wherein the sheath heater is formed of copper pipe.

20. The method as claimed in claim 13, wherein the heat generating rate of the sheath heater is determined, taking an exterior temperature into account, additionally.